

REMARKS

Claims 1-42, 48, 52 and 55-57 are cancelled from the application; and claims 43-47, 49-51, 53, 54 and 58-65 remain pending in the application. Claims 43, 47, 50, 51, 53, 54 and 61-65 are amended so that the claims now consistently refer to a perovskite-type material as a perovskite-type dielectric material throughout the claims.

Claims 43, 45, 46, 50, 51, 53, 54 and 60-63 stand rejected as being anticipated by Suh. Applicant respectfully disagrees, and requests reconsideration of such rejections.

Referring first to claim 43, such recites a capacitor construction comprising first and second capacitor electrodes, and a perovskite-type dielectric material between the first and second electrodes. The perovskite-type dielectric material is recited to comprise a first layer proximate the first electrode and a second layer against the first layer and further from the first electrode than the first layer. Further, the perovskite-type dielectric material is recited to comprise barium, strontium, titanium and oxygen throughout the first and second layers, and the second layer of the perovskite-type dielectric material is recited to have a different amount of crystallinity than the first layer of the perovskite-type dielectric material.

Claim 43 is allowable over the cited reference for at least the reason that the reference does not suggest or disclose the claim 43 recited perovskite-type dielectric material comprising a first layer with a different amount of crystallinity than a second layer. The Examiner notes that Suh refers to a perovskite-type dielectric material comprising two layers which have different crystal structures relative to one another. For instance, at col. 2, line 52 through col. 3 line 18, Suh describes a process where in a first layer of a

perovskite-type dielectric material is formed to have relatively large crystalline grains, and a second layer of the material is formed to have much smaller crystalline grains.

Applicant respectfully submits that Suh's teaching of a perovskite material having two layers with different crystalline grain structures does not anticipate the claim 43 recited perovskite material having two layers with a different amount of crystallinity relative to one another. Specifically, as described in Applicant's specification at, for example, paragraphs 21 and 22, Applicant's description of layers having different amounts of crystallinity relative to one another is a description of the relative amount of amorphous character relative to crystalline character within the layers. Suh's perovskite material layers are both described by Suh as being fully crystalline, even though the layers are described as having different sizes of crystalline grain structures therein. Accordingly, Suh's layers do not differ in the amount of crystallinity relative to one another. Instead, the layers have the same amount of crystallinity relative to one another (fully crystalline), and therefore Suh does not anticipate the claim 43 perovskite material having two layers which differ in an amount of crystallinity relative to one another. Applicant notes that Suh also does not suggest the claim 43 recited perovskite-type dielectric material comprising two layers which differ in crystallinity relative to one another and which is between a pair of capacitor electrodes.

For the reasons discussed above, claim 43 is not anticipated by Suh, nor is claim 43 rendered obvious by Suh. Applicant therefore requests allowance of claim 43 over Suh in the Examiner's next action.

Claims 45, 46, 50, 51, 53 and 54 depend from claim 43, and are therefore allowable over Suh for at least the reasons discussed above regarding claim 43.

Claims 60-63 are similar to claim 43 in that the claims recite perovskite-type dielectric material having a different amount of crystallinity in one layer relative to another. Claims 61-63 are therefore allowable over Suh for reasons similar to those discussed above regarding claim 43. Accordingly, Applicant requests formal allowance of claims 61-63 in the Examiner's next action.

Claims 44, 47, 64 and 65 are rejected over Suh in combination with either Ren or Summerfelt. Applicant respectfully requests reconsideration of such rejections. Claims 44, 47, 64 and 65 contain the limitation discussed above of a perovskite-type dielectric material having two layers which differ in an amount of crystallinity relative to one another. Also, it is noted that the claims recite that the perovskite-type dielectric material has common compositional components throughout the two layers which differ in crystallinity relative to one another, and further recite that the perovskite-type dielectric material is between first and second capacitor electrodes in a capacitor construction. The Examiner's cited references of Suh, Summerfelt and Ren contain no disclosure or suggestion within them of a perovskite-type dielectric material utilized between a pair of capacitor electrodes, and comprising two layers having the recited common compositional aspects and differing in an amount of crystallinity relative to one another. Specifically, there is no teaching of such recited aspects of the claims in any of the Examiner's cited references, nor is there any suggestion for forming such material within the combination of cited references. Accordingly, claims 44, 47, 64 and 65 are allowable over the cited references of Suh, Ren and Summerfelt, and Applicant therefore requests formal allowance of such claims in the Examiner's next action.

Applicant notes that the Examiner has not specifically rejected claims 49, 58 and 59 over any specific reference, or combination of references, in the detailed portion of the Office Action, even though claims 49, 58 and 59 are indicated to be rejected in the Examiner's summary of the Office Action. Applicant further notes that claims 49, 58 and 59 depend from claim 43, and are therefore allowable for at least the reasons discussed above regarding claim 43.

Claims 43-47, 49-51, 53, 54 and 58-65 are allowable over the cited references for the reasons discussed above. Applicant therefore respectfully requests that the Examiner's next action be a Notice of Allowance formally allowing claims 43-47, 49-51, 53, 54 and 58-65.

Respectfully submitted,

Dated: July 30, 2003 By: 
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